

RECEIVED

Y - 5 1994

DOCKET FILE COPY ORIGINAL

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

**REPORT BY THE VOLUNTARY GROUP OF EXPERTS
TO STUDY ALLOCATION AND IMPROVED USE OF
THE RADIO-FREQUENCY SPECTRUM AND
SIMPLIFICATION OF THE RADIO REGULATIONS**

PART B

RECOMMENDED CHANGES TO THE RADIO REGULATIONS

NOTES BY THE VGE

- 1) The following abbreviations are used in this Report to indicate recommended changes to the Radio Regulations provisions:

NOC	No change
ADD	Addition
(ADD)	Text transferred from elsewhere in the RR
MOD	Substantial modifications
(MOD)	Modifications without substantial changes
SUP	Deletion of the text
SUP*	Text transferred elsewhere

- 2) **S - numbering** scheme is used for identification of Chapters, Articles and newly introduced Sections.

Cross references are made to the existing RR numbers unless the referenced provision have been moved to a new place.

TABLE OF CONTENTS

	<u>Page</u>
PREAMBLE	
CHAPTER SI. Terminology and Technical Characteristics	
ARTICLE S1. Terms and Definitions.....	8
ARTICLE S2. Nomenclature	12
ARTICLE S3. Technical Characteristics of Stations.....	14
CHAPTER SII. Frequencies	
ARTICLE S4. Assignment and Use of Frequencies.....	17
ARTICLE S5. Frequency Allocations	18
ARTICLE S6. Special Agreements.....	102
CHAPTER SIII. Coordination, Notification and Recording of Frequency Assignments and Plan Modifications	
ARTICLE S7. Application of the Procedures.....	105
ARTICLE S8. Status of Frequency Assignments Recorded in the Master International Frequency Register.....	106
ARTICLE S9. Procedure for Effecting Coordination with or Obtaining Agreement of Other Administrations.....	108
ARTICLE S10. Procedure for Modification of a Frequency Allotment or Assignment Plan.....	121
ARTICLE S11. Notification and Recording of Frequency Assignments	126
ARTICLE S12. Planning and Procedure for the Bands Allocated Exclusively to the Broadcasting Service between 5 950 kHz and 26 100 kHz	136
ARTICLE S13. Instructions to the Bureau.....	141
ARTICLE S14. Procedure for the Review of a Finding or Other Decision of the Bureau.....	145

	<u>Page</u>
CHAPTER SIV. Interference	
ARTICLE S15. Interference	147
ARTICLE S16. International Monitoring	152
CHAPTER SV. Administrative Provisions	
ARTICLE S17. Secrecy.....	154
ARTICLE S18. Licences	154
ARTICLE S19. Identification of Stations	154
ARTICLE S20. Service Documents.....	161
CHAPTER SVI. Provisions for Services and Stations	
ARTICLE S21. Terrestrial and Space Services Sharing Frequency Bands Above 1 GHz	164
ARTICLE S22. Space Services.....	174
ARTICLE S23. Broadcasting Services	176
ARTICLE S24. Fixed Service.....	176
ARTICLE S25. Amateur Services	177
ARTICLE S26. Standard Frequency and Time Signal Service	178
ARTICLE S27. Experimental Stations.....	179
ARTICLE S28. Radiodetermination Services	180
ARTICLE S29. Radio Astronomy Service	181
CHAPTER SVII. Distress and Safety Communications	
ARTICLE S30. General Provisions	183
ARTICLE S31. Frequencies for the Global Maritime Distress and Safety System (GMDSS)	186
ARTICLE S32. Operational Procedures for Distress and Safety Communications (GMDSS).....	188
ARTICLE S33. Operational Procedures for Urgency and Safety Communications (GMDSS).....	189
ARTICLE S34. Alerting Signals (GMDSS)	189

	<u>Page</u>
CHAPTER SVIII. Aeronautical Services	
ARTICLE S35. Introduction	190
ARTICLE S36. Authority of the Person Responsible for the Station	190
ARTICLE S37. Operators' Certificates	190
ARTICLE S38. Personnel	193
ARTICLE S39. Inspection of Stations	193
ARTICLE S40. Working Hours of Stations	193
ARTICLE S41. Communication with Stations in the Maritime Services	193
ARTICLE S42. Conditions to be Observed by Stations	194
ARTICLE S43. Special Rules Relating to the Use of Frequencies	195
ARTICLE S44. Order of Priority of Communications	195
ARTICLE S45. General Communication Procedure	196
CHAPTER SIX. Maritime Services	
ARTICLE S46. Authority of the Master	197
ARTICLE S47. Operators' Certificates	197
ARTICLE S48. Personnel	203
ARTICLE S49. Inspection of Stations	204
ARTICLE S50. Working Hours of Stations	204
ARTICLE S51. Conditions to be Observed in the Maritime Services	205
ARTICLE S52. Special Rules Relating to the Use of Frequencies	206
ARTICLE S53. Order of Priority of Communications	207
ARTICLE S54. Selective Calling	207
ARTICLE S55. Morse Radiotelegraphy	208
ARTICLE S56. Narrow-Band Direct-Printing Telegraphy	209
ARTICLE S57. Radiotelephony	210
ARTICLE S58. Charging and Accounting for Maritime Radiocommunications, except for Distress and Safety Communications	212

	<u>Page</u>
APPENDIX S1.	
Classification of Emissions and Necessary Bandwidths.....	214
APPENDIX Numbers S2 and S3 are not used.	
APPENDIX S4.	
Consolidated List and Tables of Characteristics for use in the Application of the Procedures of Chapter SIII.....	220
APPENDIX S5.	
Identification of Administrations with which Coordination is to be Effected under the Provisions of Article S9	254
APPENDIX S6.	
(See Annex 4 of Part A)	270
APPENDIX S7.	
Determination of Coordination Area.....	270
APPENDIX S8.	
Method of Calculation for Determining if Coordination is Required	270
APPENDIX S9.	
Report of an Irregularity or Infringement.....	270
APPENDIX S10.	
Report of Harmful Interference.....	271
APPENDIX S11.	
Double-Sideband (DSB) and Single-Sideband (SSB) System Specifications in the HF Broadcasting Service.....	271
APPENDIX S12.	
Special Rules Applicable to Radiobeacons.....	272
APPENDIX S13.	
Distress and Safety Communications (Non-GDMSS).....	274
APPENDIX S14.	
Phonetic Alphabet and Figure Code	282

	<u>Page</u>
APPENDIX S15.	
Frequencies for Distress and Safety Communications for the GMDSS.....	282
APPENDIX S16.	
Documents with Which Stations on Board Ships and Aircraft Shall be Provided	287
APPENDIX S17.	
Frequencies and Channelling Arrangements in the High Frequency Bands for the Maritime Mobile Service	287
APPENDIX S18.	
Table of Transmitting Frequencies in the VHF Maritime Mobile Band.....	288
APPENDIX Numbers S19 through S24 are not used.	
APPENDIX S25.	
Frequency Allotment Plan for Coast Radiotelephone Stations Operating in the Exclusive Maritime Mobile Bands Between 4 000 kHz and 27 500 kHz.....	288
APPENDIX S26.	
Frequency Allotment Plan for the Aeronautical Mobile Service and Related Information	288
APPENDIX S27.	
Frequency Allotment Plan for the Aeronautical Mobile (R) Service and Related Information Between 2 850 kHz and 22 000 kHz	289
APPENDIX S30.	
Provisions for All Services and Associated Plans for the Broadcasting-Satellite Service in the Frequency Bands 11.7 - 12.2 GHz (in Region 3), 11.7 - 12.5 GHz (in Region 1) and 12.2 - 12.7 GHz (in Region 2).....	289
APPENDIX S30A.	
Provisions and Associated Plans for the Feeder Links for the Broadcasting-Satellite Service (11.7 - 12.5 GHz in Region 1, 12.2 -12.7 GHz in Region 2 and 11.7 - 12.2 GHz in Region 3) in the Frequency Bands 14.5 - 14.8 GHz and 17.3 - 18.1 GHz in Regions 1 and 3, and 17.3 - 17.8 GHz in Region 2.....	289
APPENDIX S30B.	
Provisions and Associated Plan for the Fixed-Satellite Service in the Frequency Bands 4 500 - 4 800 MHz, 6 725 - 7 025 MHz, 10.70 - 10.95 GHz, 11.20 - 11.45 GHz and 12.75 - 13.25 GHz.....	290

ANNEXES TO THE SIMPLIFIED RADIO REGULATIONS

	<u>Page</u>
Annex 20 International Monitoring System	292
Annex 58 Working Hours of Ship Stations	294
Annex 62A Sequential Single-Frequency Code System	296
Annex 62B Digital Selective Calling System	298
Annex 63 Morse Telegraphy Procedures in the Maritime Mobile Service	303
Annex 64 Narrow-Band Direct-Printing Telegraphy	312
Annex 65A Radiotelephony in the Maritime Mobile Service	315
Annex 65B Digital Selective Calling Procedures	327
Annex AP 6 Determination of Necessary Bandwidths Including Examples for their Calculation and Associated Examples for the Designation of Emissions	328
Annex AP 7	338
Annex AP 8	338
Annex AP 12	338
Annex AP 13	338
Annex AP 14	338
Annex AP 15	338
Annex AP 17	338
Annex AP 19	338
Annex AP 20	338
Annex AP 21	338
Annex AP 36	338
Annex AP 37	338
Annex AP 37A	338
Annex AP 38	338
Annex AP 39	338
Annex AP 41	338

RADIO REGULATIONS

PREAMBLE

- ADD 1A** These Regulations are founded on the following principles:
- ADD 1B** Administrations shall endeavour to limit the number of frequencies and the spectrum used to the minimum essential to provide in a satisfactory manner the necessary services. To that end, they shall endeavour to apply the latest technical advances as soon as possible. (CS195)
- ADD 1C** In using frequency bands for radio services, administrations shall bear in mind that radio frequencies and the geostationary-satellite orbit are limited natural resources and that they must be used rationally, efficiently and economically, in conformity with the provisions of the Radio Regulations, so that countries or groups of countries may have equitable access to both, taking into account the special needs of the developing countries and the geographical situation of particular countries. (CS196)
- ADD 1D** All stations, whatever their purpose, must be established and operated in such a manner as not to cause harmful interference to the radio services or communications of other administrations or of recognized operating agencies, or of other duly authorized operating agencies which carry on a radio service, and which operate in accordance with the provisions of these Regulations. (CS197)
- ADD 1E** With a view to fulfilling the purposes of the Union appearing in Article 1 of the Constitution, these Regulations have the following objectives:
- ADD 1F** to facilitate equitable access to and the orderly use of the natural resources of the radio-frequency spectrum and the geostationary-satellite orbit;
- ADD 1G** to ensure the availability and protection from harmful interference of the frequencies provided for distress and safety purposes;
- ADD 1H** to assist in the prevention and resolution of harmful interference between the radio services of different administrations;
- ADD 1I** to facilitate the efficient and effective operation of all radiocommunication services;
- ADD 1J** to provide for and where necessary regulate new applications of radiocommunication technology.
- MOD 1K** The application of the provisions of these Regulations by the International Telecommunication Union does not imply the expression of any opinion whatsoever on the part of the Union concerning the sovereignty or the legal status of any country, territory or geographical area.

CHAPTER SI

MOD Terminology and Technical Characteristics

(MOD) ARTICLE 4S1

NOC Terms and Definitions

Introduction

MOD 2 For the purposes of these Regulations, the following terms shall have the meanings defined below. These terms and definitions do not, however, necessarily apply for other purposes. Definitions identical to those contained in the International Telecommunication Convention (Malaga-Torremolinos, 1973) Annex to the Constitution or the Annex to the Convention of the International Telecommunication Union (Geneva, 1992) are marked "~~(CONV-)~~" "(CS)" or "(CV)" respectively.²

Note: If, in the text of a definition below, a term is printed in italics, this means that the term itself is defined in this Article.

Reasons: Consequential to the decisions of APP-92.

SUP ² ~~Note by the General Secretariat: The following provisions: 4, 26, 36, 110, 112 and 163 contain definitions identical to those in the International Telecommunication Convention (Nairobi, 1982).~~

Reasons: This Note is incomplete and does not appear to be necessary.

Section I. General Terms

MOD 3 1.1 *Administration:* Any governmental department or service responsible for discharging the obligations undertaken in the Convention of the International Telecommunication Union and in the Administrative Regulations ~~(CONV-)~~ (CS).

Reasons: To align with the CS/An. 1002.

(MOD) 4 1.2 *Telecommunication:* Any transmission, *emission* or reception of signs, signals, writings, images and sounds or intelligence of any nature by wire, *radio*, optical or other electromagnetic systems ~~(CONV-)~~ (CS).

Reasons: To align with the CS/An. 1012.

(MOD) 5 1.3 *Radio:* A general term applied to the use of *radio waves* ~~(CONV-)~~.

Reasons: The term Radio is not defined in the Constitution or the Convention (Geneva, 1992).

NOC	6	
(MOD)	7	1.5 <i>Radiocommunication: Telecommunication by means of radio waves</i> (CONV.) <u>(CS)(CV)</u> . <u>Reasons:</u> To align with the CS/An. 1009 and CV/An. 1005.
NOC	8 to 14	
MOD	15	1.13 <i>Coordinated Universal Time (UTC):</i> Time scale, based on the second (SI), as defined and recommended by the CCIR in the most recent version of ITU-R Recommendation 460, and maintained by the International Time Bureau (BIPM). For most practical purposes associated with the Radio Regulations, UTC is equivalent to mean solar time at the prime meridian (0° longitude), formerly expressed in GMT. <u>Reasons:</u> Simplification by maintaining the reference only to the appropriate ITU-R Recommendations.
NOC	16 to 22	
SUP	23	3.4 <i>Aeronautical Fixed Service: A radiocommunication service between specified fixed points provided primarily for the safety of air navigation and for the regular, efficient and economical operation of air transport.</i> <u>Reasons:</u> The VGE recommends that the Aeronautical Fixed Service be assimilated with the Fixed Service and not be retained as a separate service.
NOC	24 and 25	
(MOD)	26	3.7 <i>Mobile Service: A radiocommunication service between mobile and land stations, or between mobile stations</i> (CONV.) <u>(CV)</u> . <u>Reasons:</u> To align with the CV/An. 1003.
NOC	27 to 35B	
(MOD)	36	3.17 <i>Broadcasting Service: A radiocommunication service in which the transmissions are intended for direct reception by the general public. This service may include sound transmissions, television transmissions or other types of transmission</i> (CONV.) <u>(CS)</u> . <u>Reasons:</u> To align with the CS/An. 1010.
NOC	37 to 55	

(MOD) 56 3.37 *Safety Service*: Any *radiocommunication service* used permanently or temporarily for the safeguarding of human life and property ~~(CONV.)~~.

Reasons: The term *Safety Service* is not defined in the Constitution or the Convention (Geneva, 1992).

NOC 57
to
63

SUP 64 4.7 ~~*Aeronautical Fixed Station*: A station in the aeronautical fixed service.~~

Reasons: Consequential to the VGE recommendation to delete RR 23.

NOC 65
to
109

Section V. Operational Terms

(MOD) 110 5.1 *Public Correspondence*: Any *telecommunication* which the offices and *stations* must, by reason of their being at the disposal of the public, accept for transmission ~~(CONV.)~~(CS).

Reasons: To align with the CS/An. 1004.

(MOD) 111 5.2 *Telegraphy*^{*}: A form of *telecommunication* which is concerned in any process providing transmission and reproduction at a distance of documentary matter, such as written or printed matter or fixed images, or the reproduction at a distance of any kind of information in such a form. For the purposes of the Radio Regulations, unless otherwise specified therein, telegraphy shall mean a form of *telecommunication* for the transmission of written matter by the use of a signal code. (CS).

(MOD) ^{*} *Note by the General Secretariat*: This definition is not in alignment with No. 1016 of the Annex 2 to the ~~Convention~~Constitution. The corresponding definition in that Annex shall prevail to the extent that there are differences between them (see also Resolution 68).

Reasons: Consequential to the decisions of APP-92.

(MOD) 112 5.3 *Telegram*: Written matter intended to be transmitted by *telegraphy* for delivery to the addressee. This term also includes *radiotelegrams* unless otherwise specified ~~(CONV.)~~(CS).

Reasons: To align with the CS/An. 1013.

NOC 113
to
115

(MOD)	116	<p>5.7 <i>Facsimile</i>: A form of <i>telegraphy</i> for the transmission of fixed images, with or without half-tones, with a view to their reproduction in a permanent form.</p> <p>In this definition the term <i>telegraphy</i> has the same general meaning as defined in the Convention.</p> <p><u>Reasons:</u> To align with the CS/An.</p>
MOD	117	<p>5.8 <i>Telephony</i>*: A form of <i>telecommunication</i> set up for the transmission of speech or, in some cases, other sounds <u>primarily intended for the exchange of information in the form of speech.</u></p> <p><u>Reasons:</u> To align with the CS/An. 1017.</p>
NOC	118 to 146	
(MOD)	147	<p>6.17 <i>Occupied Bandwidth</i>: The width of a frequency band such that, below the lower and above the upper frequency limits, the <i>mean powers</i> emitted are each equal to a specified percentage $\beta/2$ of the total <i>mean power</i> of a given <i>emission</i>.</p> <p>Unless otherwise specified by the CCIR in an ITU-R <u>Recommendation</u> for the appropriate <i>class of emission</i>, the value of $\beta/2$ should be taken as 0.5%.</p> <p><u>Reasons:</u> Consequential to the decisions of APP-92.</p>
NOC	148 and 149	
(MOD)	150	<p>6.20 <i>Power</i>: Whenever the power of a radio transmitter, etc. is referred to it shall be expressed in one of the following forms, according to the <i>class of emission</i>, using the arbitrary symbols indicated:</p> <ul style="list-style-type: none"> - <i>peak envelope power</i> (PX or pX); - <i>mean power</i> (PY or pY); - <i>carrier power</i> (PZ or pZ). <p>For different <i>classes of emission</i>, the relationships between <i>peak envelope power</i>, <i>mean power</i> and <i>carrier power</i>, under the conditions of normal operation and of no modulation, are contained in CCIR <u>ITU-R Recommendations</u> which may be used as a guide.</p> <p>For use in formulae, the symbol <i>p</i> denotes power expressed in watts and the symbol <i>P</i> denotes power expressed in decibels relative to a reference level.</p> <p><u>Reasons:</u> Consequential to the decisions of APP-92.</p>
NOC	151 to 160	

(MOD) 161 7.2 *Permissible Interference*¹: Observed or predicted *interference* which complies with quantitative *interference* and sharing criteria contained in these Regulations or in CCIR/ITU-R Recommendations or in special agreements as provided for in these Regulations.

Reasons: Consequential to the decisions of APP-92.

NOC 161.1 ¹ The terms *permissible interference* and *accepted interference* are used in the coordination of frequency assignments between administrations.

NOC 162 7.3 *Accepted Interference*¹ : *Interference* at a higher level than that defined as *permissible interference* and which has been agreed upon between two or more administrations without prejudice to other administrations.

NOC 162.1 ¹ The terms *permissible interference* and *accepted interference* are used in the coordination of frequency assignments between administrations.

(MOD) 163 7.4 *Harmful Interference*: *Interference* which endangers the functioning of a *radionavigation service* or of other *safety services* or seriously degrades, obstructs, or repeatedly interrupts a *radiocommunication service* operating in accordance with these Regulations (CS).

Reasons: To align with the CS/An. 1003.

NOC 164
to
183

184
to
207

NOT allocated.

(MOD) ARTICLE 2S2

MOD ~~Nomenclature of the Frequency and Wavelength Bands~~
~~Used in Radiocommunication~~

ADD Section I. Frequency and Wavelength Bands

MOD 208 § 1. The radio spectrum shall be subdivided into nine frequency bands, which shall be designated by progressive whole numbers in accordance with the following table. As the unit of frequency is the hertz (Hz), frequencies shall be expressed:

- in kilohertz (kHz), up to and including 3 000 kHz;
- in megahertz (MHz), above 3 MHz, up to and including 3 000 MHz;
- in gigahertz (GHz), above 3 GHz, up to and including 3 000 GHz.

~~For bands above 3 000 GHz, i.e. centimillimetric waves, micrometric waves and decimicrometric waves, it would be appropriate to use terahertz (THz).~~

However, where adherence to these provisions would introduce serious difficulties, for example in connection with the notification and registration of frequencies, the lists of frequencies and related matters, reasonable departures may be made.

Band Number	Symbols	Frequency Range (lower limit exclusive, upper limit inclusive)	Corresponding Metric Subdivision	Metric Abbreviations for the Bands
4	VLF	3 to 30 kHz	Myriametric waves	B.Mam
5	LF	30 to 300 kHz	Kilometric waves	B.km
6	MF	300 to 3 000 kHz	Hectometric waves	B.hm
7	HF	3 to 30 MHz	Decametric waves	B.dam
8	VHF	30 to 300 MHz	Metric waves	B.m
9	UHF	300 to 3 000 MHz	Decimetric waves	B.dm
10	SHF	3 to 30 GHz	Centimetric waves	B.cm
11	EHF	30 to 300 GHz	Millimetric waves	B.mm
12		300 to 3 000 GHz	Decimillimetric waves	

Note 1: "Band Number N" (N = band number) extends from 0.3×10^N Hz to 3×10^N Hz.

Note 2: Prefix: k = kilo (10^3), M = mega (10^6), G = giga (10^9), ~~T =~~
~~tera (10^{12}).~~

Reasons: In view of No. 6, the bands above 3 000 GHz do not need to be included in No. 208.

NOC

209

210

to

234

NOT allocated.

SUP

ARTICLE 3

MOD

**Section II. Nomenclature of Dates and Times
Used in Radiocommunication**

NOC 235
to
238

239
to
263

NOT allocated.

SUP

ARTICLE 4

MOD

Section III. Designation of Emissions

MOD 264

~~§-1.~~ (1) Emissions shall be designated according to their necessary bandwidth and their classification in accordance with the method described in Appendix S1.

SUP 265
to
273

Reasons: The method of designating emissions is transferred to Appendix S1.

274
to
298

NOT allocated.

(MOD)

ARTICLE ~~5~~S3

NOC

Technical Characteristics of Stations

NOC 299

(MOD) 300

(2) Also, as far as is compatible with practical considerations, the choice of transmitting, receiving and measuring equipment shall be based on the most recent advances in the technique as indicated, *inter alia*, in CCIRITU-R Recommendations.

NOC	301	
(MOD)	302	§ 3. To the maximum extent possible, equipment to be used in a station should apply signal processing methods which enable the most efficient use of the frequency spectrum in accordance with the relevant <u>CCIRITU-R</u> Recommendations. These methods include, <i>inter alia</i> , certain bandwidth expansion techniques, and in particular, in amplitude-modulation systems, the use of the single-sideband technique.
MOD	303	§ 4. (1) Transmitting stations shall conform to the frequency tolerances specified in Appendix 7 ITU-R Recommendation ... (see Annex AP 7).
MOD	304	(2) Transmitting stations shall conform to the maximum permitted spurious emission power levels specified Appendix 8 in ITU-R Recommendation ... (see Annex AP 8). <u>Reasons:</u> Appendices to be transferred to ITU-R Recommendations.
MOD	305	(3) Transmitting stations shall conform to the maximum permitted power levels for out-of-band emissions specified for certain services and classes of emission in the present Regulations e.g. Appendices 17 and 27 Aer2* . In the absence of such specified maximum permitted power levels transmitting stations shall, to the maximum extent practical, satisfy the requirements relating to the limitation of the out-of-band emissions specified in the most recent <u>CCIRITU-R</u> Recommendations.
SUP		* Note by the General Secretariat: See No. 5189 and Resolution 400. <u>Reasons:</u> Note is no longer necessary. Other changes delete unnecessary text or reflect current practice.
NOC	306	
(MOD)	307	§ 5. (1) The bandwidths of emissions also shall be such as to ensure the most efficient utilization of the spectrum; in general this requires that bandwidths be kept at the lowest values which the state of the technique and the nature of the service permit. Appendix 6S1 is provided as a guide for the determination of the necessary bandwidth.
NOC	308 to 311	
(MOD)	312	§ 7. To ensure compliance with these Regulations, administrations shall arrange for frequent checks to be made of the emissions of stations under their jurisdiction. For this purpose, they shall use the means indicated in Article 20, if required. The technique of measurements and the intervals of measurements to be employed shall be, as far as is practicable, in accordance with the most recent <u>CCIRITU-R</u> Recommendations.

NOC

313

314

to

338

NOT allocated.

CHAPTER SII

NOC

Frequencies

(MOD)

ARTICLE ~~6~~S4

MOD

~~General Rules for the Assignment and Use of Frequencies~~

ADD

Section I. General Rules

MOD

339

§ 1. Members shall endeavour to limit the number of frequencies and the spectrum space used to the minimum essential to provide in a satisfactory manner the necessary services. To that end they shall endeavour to apply the latest technical advances as soon as possible¹.

(MOD)

339.1

¹ No. ~~430~~195 of the ~~International Telecommunication Convention (Malaga-Torremolinos, 1973)~~Constitution of the International Telecommunication Union (Geneva, 1992).

Reasons: Update of the reference.

NOC

340

MOD

341

§ 3. Any new assignment or any change of frequency or other basic characteristic of an existing assignment (see ~~Appendix 1 or Appendix 3~~Appendix S4) shall be made in such a way as to avoid causing harmful interference to services rendered by stations using frequencies assigned in accordance with the Table of Frequency Allocations in this Chapter and the other provisions of these Regulations, the characteristics of which assignments are recorded in the Master International Frequency Register.

MOD

342

§ 4. Administrations of the Members shall not assign to a station any frequency in derogation of either the Table of Frequency Allocations given in this Chapter or the other provisions of these Regulations, except on the express condition that ~~harmful interference shall not be caused to services carried on by stations~~a station shall not cause harmful interference to, and shall not claim protection from harmful interference caused by, a station operating in accordance with the provisions of the Constitution, the Convention and of these Regulations.

Reasons: RR 342 presently refers to a transmitting station. It is modified to reflect the actual practice.

NOC

343
to
346

MOD 347 § 9. No provision of these Regulations prevents the use by a station in distress, or by a station providing assistance to it, of any means of radiocommunication at its disposal to attract attention, make known ~~its~~the condition and location of the station in distress, and obtain or provide assistance.

SUP 348
349
to
373
Reasons: To combine the provisions of RR 347 and RR 348.
NOT allocated.

SUP ARTICLE ~~9~~

MOD Section II. Special Rules for the Assignment and Use of Frequencies

NOC 953
to
963

(ADD) 963A § 7bis. In exceptional cases, land mobile earth stations in the land (5138) mobile-satellite service may communicate with stations in the maritime mobile-satellite and aeronautical mobile-satellite services. Such operations shall comply with the relevant provisions of the Radio Regulations relating to those services and shall be subject to agreement among administrations concerned, taking due account of No. 953.

Reasons: Provision is transferred from Chapter XII, which has been suppressed except for this paragraph.

NOC 964
965
to
989
NOT allocated.

(MOD) ARTICLE ~~8~~S5

NOC Frequency Allocations

NOC Introduction

NOC 391

NOC

Section I. Regions and Areas

NOC 392
and
392.1

NOC

Graphique, p. RR8-2

NOC 393
to
412

NOC

Section II. Categories of Services and Allocations

MOD 413

Primary, ~~Permitted~~ and Secondary Services

Reasons: VGE recommendation 1/17. Permitted category of service deleted.

NOC 414
and
415

SUP 416

Reasons: See MOD 413.

(MOD) 417

eb) services the names of which are printed in "normal characters" (example: Mobile); these are called "secondary" services (see Nos. 420 to 423).

NOC 418

SUP 419

Reasons: See MOD 413.

(MOD) 420

(4)(3) Stations of a secondary service:

MOD 421

a) shall not cause harmful interference to stations of primary ~~or permitted~~ services to which frequencies are already assigned or to which frequencies may be assigned at a later date;

Reasons: See MOD 413.

MOD 422

b) cannot claim protection from harmful interference from stations of a primary ~~or permitted~~ service to which frequencies are already assigned or may be assigned at a later date;

Reasons: See MOD 413.

NOC 423

(MOD) 424 ~~(5)(4)~~ Where a band is indicated in a footnote of the Table as allocated to a service "on a secondary basis" in an area smaller than a Region, or in a particular country, this is a secondary service (see Nos. 420 to 423).

MOD 425 ~~(6)(5)~~ Where a band is indicated in a footnote of the Table as allocated to a service "on a primary basis", or ~~"on a permitted basis"~~ in an area smaller than a Region, or in a particular country, this is a primary service ~~or a permitted service only in that area or country (see No. 419).~~

Reasons: See MOD 413.

NOC 426
to
436

ADD 436A

Before bringing into use and notifying the Bureau of any assignment in a service which is subject to this regulation, the procedure of Article S9 shall be applied; such an assignment shall be considered to be in conformity with the Table of Frequency Allocations only after the successful application of Article S9.

Reasons: VGE recommendation 1/21.

NOC Section III. Description of the Table of Frequency Allocations

NOC 437
to
443

NOC Section IV. Table of Frequency Allocations (See No. 208)

NOC kHz
9 - 70

NOC 444
and
445

MOD 446
WARC-92 *Additional allocation:* In Bulgaria, the German Democratic Republic, Czechoslovakia and the U.S.S.R., the band 14 - 17 kHz is also allocated to the radionavigation service on a ~~permitted~~ primary basis.

Reasons: VGE recommendation 1/17. Permitted category of service deleted, but replaced by primary.

NOC 447
WARC-92
and
448
Mob-87

MOD	449 WARC-92	<p><i>Additional allocation:</i> In Bulgaria, Poland, the German Democratic Republic, Czechoslovakia and the U.S.S.R., the band 67 - 70 kHz is also allocated to the radionavigation service on a <u>permitted primary</u> basis.</p> <p><u>Reasons:</u> VGE recommendation 1/17. Permitted category of service deleted, but replaced by primary.</p>
NOC		<p>kHz 70 - 110</p>
NOC	450 and 451 Mob-87	
MOD	452	<p>In Region 2, the establishment and operation of stations in the maritime radionavigation service in the bands 70 - 90 kHz and 110 - 130 kHz shall be subject to agreement obtained under the procedure set forth in Article 14 with administrations whose services, operating in accordance with the Table, may be affected <u>and No. 436A shall apply</u>. However, stations of the fixed, maritime mobile and radiolocation services shall not cause harmful interference to stations in the maritime radionavigation service established under such agreements.</p> <p><u>Reasons:</u> VGE recommendation 1/21. Standardized reference for Article 14 footnotes.</p>
NOC	453 to 454	
NOC		<p>kHz 110 - 130</p>
NOC	455 and 456	

kHz
130 – 315

Allocation to Services			
	Region 1	Region 2	Region 3
MOD	130 – 148.5 MARITIME MOBILE /FIXED/ 454 457	130 – 160 FIXED MARITIME MOBILE 454	130 – 160 FIXED MARITIME MOBILE RADIONAVIGATION 454
	148.5 – 255 BROADCASTING	160 – 190 FIXED 459	160 – 190 FIXED Aeronautical Radionavigation
SUP	460 461 462	190 – 200 AERONAUTICAL RADIONAVIGATION	
MOD SUP	255 – 283.5 BROADCASTING /AERONAUTICAL RADIONAVIGATION/ 463 462 464	200 – 275 AERONAUTICAL RADIONAVIGATION Aeronautical Mobile	200 – 285 AERONAUTICAL RADIONAVIGATION Aeronautical Mobile
	283.5 – 315 MARITIME RADIONAVIGATION (radiobeacons) 466 /AERONAUTICAL RADIONAVIGATION/	275 – 285 AERONAUTICAL RADIONAVIGATION Aeronautical Mobile Maritime Radionavigation (radiobeacons)	
MOD		285 – 315 MARITIME RADIONAVIGATION (radiobeacons) 466 /AERONAUTICAL RADIONAVIGATION/	
MOD	465 466A		

Reasons: VGE recommendation 1/17. Permitted category of service deleted, but replaced by primary. See SUP 459, and SUP 463, below.

NOC
457
WARC-92
and
458
Mob-87

SUP 459

Reasons: VGE recommendation 1/18. Merging of aeronautical fixed with the fixed service. Deletion of the aeronautical fixed service.

NOC 460
to
462

SUP 463

Reasons: VGE recommendation 1/17. Consequential to deletion of permitted category of service.

NOC 464
to
466

MOD 466A
Mob-87

Additional Allocation: in Region 1, the frequency band 285.3 - 285.7 kHz is also allocated to the maritime radionavigation service (other than radiobeacons) on a ~~permitted~~ primary basis.

Reasons: VGE recommendation 1/17. Permitted category of service deleted but replaced by primary.